

GENERAL CORPORATION LAWS: HISTORY AND ECONOMICS

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“Where there is no bread, there is no Law; where there is no Law, there is no bread.”¹

“[T]wo intellectual inventions of the Renaissance, double-entry bookkeeping and the corporation, proved vital to the development of European civilization in the New World”²

I

INTRODUCTION

The symbiosis of law and business is often noted, less often truly appreciated—until either law or economic growth is absent—and much debated. The relationship of corporate law to national economics is real, appreciated, and being hotly debated on this sixtieth anniversary of the Model Business Corporation Act (MBCA). The financial crises, scandals, and economic losses of the first decade of the twenty-first century have caused many to question the efficacy of state corporate laws—like the MBCA and the Delaware General Corporation Law—and advocate fundamental change, deemed to be “reform” of those laws.³

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1. BENJAMIN M. FRIEDMAN, THE MORAL CONSEQUENCES OF ECONOMIC GROWTH 325 (2006) (citing RABBI ELEAZAR BEN AZARIAH, CHAPTERS OF THE FATHERS).

2. JOHN STEELE GORDON, AN EMPIRE OF WEALTH: THE EPIC HISTORY OF AMERICAN ECONOMIC POWER 9 (2004).

3. The recently enacted Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010) [hereinafter Dodd-Frank Act] contains several provisions that treat corporate governance, including most prominently authorization for the SEC to adopt a “proxy access” system, Dodd-Frank Act § 971, and “say on pay” and other executive compensation provisions. Dodd-Frank Act §§ 951–957. For differing views on proxy access, compare Lucian A. Bebchuk & Scott Hirst, *Private Ordering and the Proxy Access Debate*, 65 BUS. LAW. 329 (2010), with Joseph A. Grundfest, *The SEC's Proposed Proxy Access Rules: Politics, Economics, and the Law*, 65 BUS. LAW. 361 (2010).

There are important and legitimate questions being raised about corporate law and governance.⁴ But much of the debate has centered on the appropriate level of government to address the subject—whether the law should be the domain of the states, the federal government, international bodies, or some combination of all of these. This article will leave those arguments aside, for they have been better addressed by others.⁵ Rather, this article will briefly address three questions: (1) what are the purposes of the corporate law (or other entity law), as reflected by the history of such organizations and how well have those laws fulfilled those purposes; (2) what economic phenomena have contributed to the success or failure of those laws; and (3) what are the implications of these economic observations for corporate and entity law?

II

THE HISTORY, PURPOSE, AND SUCCESS OF THE CORPORATE FORM

Within the past 150 years, non-governmental corporations have become the principal social institution by which business and economic activity has been conducted—whether for-profit, not-for-profit, or for charitable purposes. It was not always so:

The word [corporation] refers to any association of individuals bound together into a *corpus*, a body sharing a common purpose in a common name. In the past, that purpose had usually been communal or religious; boroughs, guilds, monasteries, and bishoprics were the earliest European manifestations of the corporate form. They all owed their existence, and the privileges stemming from a corporate charter, to an act of a sovereign authority. It was assumed, as it is still in nonprofit corporations, that the corporate body earned its charter by serving the public good. The same thinking applied in the chartering of joint-stock companies in the age of exploration and colonization.⁶

Before the Civil War in the United States, the corporate charter generally was perceived as a privilege granted only by a special act of the legislature for

4. See generally Brian R. Cheffins, *Did Corporate Governance “Fail” During the 2008 Stock Market Meltdown? The Case of the S&P 500*, 65 BUS. LAW. 1 (2009); Frank H. Easterbrook, *The Race for the Bottom in Corporate Governance*, 95 VA. L. REV. 685 (2009); JOSEPH E. STIGLITZ, *FREEFALL: AMERICA, FREE MARKETS, AND THE SINKING OF THE WORLD ECONOMY* 151–55 (2010); RICHARD A. POSNER, *A FAILURE OF CAPITALISM: THE CRISIS OF '08 AND THE DESCENT INTO DEPRESSION* 97–99 (2009).

5. See generally Leo E. Strine, Jr., *Breaking the Corporate Governance Logjam in Washington: Some Constructive Thoughts on a Responsible Path Forward*, 63 BUS. LAW. 1079 (2008); Sean J. Griffith & Myron T. Steele, *On Corporate Law Federalism: Threatening the Thaumatrope*, 61 BUS. LAW. 1 (2005); William B. Chandler III & Leo E. Strine, Jr., *The New Federalism of the American Corporate Governance System: Preliminary Reflections of Two Residents of One Small State*, 152 U. PA. L. REV. 953 (2003); Renee M. Jones, *Rethinking Corporate Federalism in the Era of Corporate Reform*, 29 J. CORP. L. 625 (2004); Mark J. Roe, *Delaware’s Competition*, 117 HARV. L. REV. 588 (2003); David A. Skeel, Jr., *Icarus and American Corporate Regulation*, 61 BUS. LAW. 155 (2005); Lawrence A. Hamermesh, *The Policy Foundations of Delaware Corporate Law*, 106 COLUM. L. REV. 1749 (2006); Marcel Kahan & Edward Rock, *Symbiotic Federalism and the Structure of Corporate Law*, 58 VAND. L. REV. 1573 (2005).

6. ALAN TRACHTENBERG, *THE INCORPORATION OF AMERICA: CULTURE AND SOCIETY IN THE GILDED AGE* 5–6 (1982).

purposes deemed to be in the public interest.⁷ Incorporation was not yet deemed a right available on application by any private enterprise: “The earliest charters were thus bestowed on insurance companies, commercial banks, canal, dock, and highway companies”⁸ These corporations were not exclusively profit-seeking associations, but were quasi-public agencies of the state, oftentimes “mixed enterprises” in which public funds were invested with private funds for needed internal improvements to transportation facilities, such as highways and canals.⁹

The situation began to change with the economic growth, both in Europe and in the United States, during the nineteenth century, and, in the case of the United States, particularly during the period from the Civil War to the First World War (1860 through 1914). In the eighteenth and early nineteenth centuries, the American economy was characterized by individually and family-owned enterprises.¹⁰ In the entire colonial period, only seven companies were incorporated in the British North American colonies.¹¹ In just the last four years of the eighteenth century, however, 335 businesses incorporated in the new United States.¹² “Organizations with more than a hundred employees were a rarity. By the time of the Civil War, however, several railroads were employing thousands, and industrial companies were growing as well.”¹³ In 1811, New York became the first state with a general incorporation statute, but it was available only to corporations manufacturing textiles, glass, metals, and paint. The earliest legislations permitting formation of corporations for any lawful, specified purpose were adopted by Connecticut in 1837 and Iowa in 1846.¹⁴

The corporate form had numerous advantages over non-corporate forms. The most critical was the doctrine of limited liability. Beginning with the railroads in the mid-1800s and accelerating after the Civil War, it became necessary to raise large sums of capital for growing enterprises. The pooling of small investments by numerous investors became an important means of raising those funds, but investors would not be willing to make small investments in enterprises they would not control, if doing so exposed them to unlimited liability for the debts of the enterprise. The limited liability of stockholders was critical, not only to the development of the corporation, but also to the economic development of Europe and the United States.¹⁵ Other advantages of the corporate form included the ability to utilize “modern” management techniques, which were being developed during the late nineteenth and early

7. *Id.* at 6.

8. *Id.*

9. *Id.*

10. GORDON, *supra* note 2, at 228.

11. *Id.*

12. *Id.* at 228–29.

13. *Id.* at 228.

14. MODEL BUS. CORP. ACT § 3.01 (2008).

15. *See* GORDON, *supra* note 2, at 9–11, 228–29.

twentieth centuries by professional managers who were not owners of the businesses,¹⁶ perpetual existence, and the ability to merge.¹⁷ The corporate form also was utilized as a means to restrain competition and coordinate vertical and horizontal integration in many industries.¹⁸

The most significant disadvantage of the corporate form is the well-known separation of ownership from operating control of the business.¹⁹ This created the classic problem of management operating the entity for its personal benefit and gave rise to the imposition of fiduciary duties. This problem would pose the most significant threat to the efficacy of the corporate form because trust is so essential to the maintenance of all forms of cooperative human activity. The separation of management from ownership also gave rise to a need for better accounting, as stockholders wanted timely information with which to evaluate management, and management was tempted to use accounting to make its performance appear better.²⁰ Beginning in the 1880s, “[t]he big Wall Street banks, which were becoming ever more powerful, and the New York Stock Exchange increasingly required companies that . . . wanted to be listed on the exchange to conform to what would come to be called ‘generally accepted accounting principles’ and to have their books certified by” a newly-created profession—the certified public accountant, first legislatively recognized in New York in 1896.²¹

By the end of the nineteenth century, the laws governing incorporation had evolved to respond to the needs of the economy and the objectives of the business and financial worlds. No longer a privilege, incorporation became a right available to the exuberant businesspersons and financiers of the era. In essence, the corporation had evolved from a specialized entity, created for the particular ends of the “sovereign,” to an entity created to facilitate new and ever evolving forms of organization needed by the economy.²² However, under either structure, the corporation was designed for the purpose of facilitating common action, not restraining or prohibiting it. Not surprisingly, the laws that evolved to facilitate this form increasingly evidenced the characteristic of being “empowering” statutes, not regulatory statutes.²³ The essential caveats to this empowerment were the maintenance of trust, reflected in the fiduciary duties

16. See TRACHTENBERG, *supra* note 6, at 83–86.

17. GORDON, *supra* note 2, at 229.

18. TRACHTENBERG, *supra* note 6, at 83–86.

19. See GORDON, *supra* note 2, at 229–30.

20. *Id.* at 230.

21. *Id.* at 231–32.

22. By the end of the nineteenth century, the laws treating the corporate form had “converged” in providing five basic features that characterized the corporate form: (1) full legal personality, including the ability to contract; (2) limited liability for owners and managers; (3) shared ownership by investors of capital; (4) delegated management; and (5) transferable shares. Henry Hansmann & Reinier Kraakman, *The End of History for Corporate Law*, 89 GEO. L.J. 439, 439–40 (2001).

23. See MODEL BUS. CORP. ACT § 3.01 (2008).

imposed by the law, and the need for stockholders to be informed about the financial affairs of the corporation.

From this history, it is evident that the legal entity known as the corporation had become the favored form of organization for larger businesses, and that larger businesses were becoming a greater percentage of the economy.²⁴ This phenomenon leads to several conclusions. First, the essential purpose of a corporation—or any other form of legal entity—is to facilitate collective action by individuals. It allows various persons to make varying contributions to the collective effort. Second, the expansion of the corporate form, from governmental to quasi-governmental to private enterprise, evidences the success of this form of organization and its consequent proliferation. The creation of new types of legal entities has continued this proliferation.²⁵ Third, while some may question the benefits of growth or the allocation of its benefits among groups within society, it would seem no one could reasonably question the success of the corporate form in promoting growth and economic innovation.²⁶

III

FACTORS FOR SUCCESS AND FAILURE

There are a host of reasons for the economic success of corporations, most of which are not directly tied to the law by which corporations are formed, but

24. By 1904, “about three hundred industrial corporations had won control over more than two fifths of all manufacturing in the country, affecting the operations of about four fifths of the nation’s industries.” TRACHTENBERG, *supra* note 6, at 4.

25. During the past decade, the limited liability company (LLC) has become the favored form of business organization, except with respect to publicly-traded entities, where the corporation remains the favored legal entity. *See generally* Rodney D. Chrisman, *LLCs Are the New King of the Hill: An Empirical Study of the Number of New LLCs, Corporations, and LPs Formed in the United States Between 2004-2007 and How LLCs Were Taxed for Tax Years 2002-2006*, 15 FORDHAM J. CORP. & FIN. L. 459 (2010).

26. *See generally* GORDON, *supra* note 2; FRIEDMAN, *supra* note 1; DANIEL YERGIN & JOSEPH STANISLAW, *THE COMMANDING HEIGHTS: THE BATTLE FOR THE WORLD ECONOMY* (2002). The rate at which human economic production has grown has skyrocketed in the past 250 years. According to Berkeley economist, J. Bradford Long, per person gross domestic product (GDP) in a hunter-gatherer society of 15,000 years ago was approximately ninety dollars, increasing to \$150 in the economy of the ancient Greeks in 1000 B.C. and to \$180 in 1750. However, subsequent to 1750, there has been a thirty-seven-fold increase in GDP per person to \$6,600, with the wealthiest societies producing well above that level. It took 99.4% of economic history to reach the wealth levels of hunter-gatherers, 0.59% of that history to double that level by 1750, and then just 0.01% of that history for global wealth levels to reach present levels. Over ninety-seven percent of humanity’s wealth was created in just the last 0.1% of our history. ERIC BEINHOCKER, *THE ORIGIN OF WEALTH: EVOLUTION, COMPLEXITY AND THE RADICAL REMAKING OF ECONOMICS* 9–11 (2006). As described by economic historian, David Landes, “the Englishman of 1750 was closer in material things to Caesar’s legionnaires than to his own great-grand-children.” DAVID S. LANDES, *THE UNBOUND PROMETHEUS: TECHNOLOGICAL CHANGE AND INDUSTRIAL DEVELOPMENT IN WESTERN EUROPE FROM 1750 TO THE PRESENT* 5 (1969). This period of incredible growth obviously was driven by the industrial revolution and technological advances, but many of those developments were facilitated by and utilized by corporations.

rather, are a product of the strengths and weaknesses of the individuals who participate in or contribute to the enterprise and the social, market, and governmental environment in which they operate. But this article will focus upon several aspects of economic theory that seem important to the success of the corporate form or any form of organization.

To understand how and why the corporate laws may have contributed to the incredible growth of the past 250 years—and to understand how they may continue to do so in the future—an understanding of how and why that growth occurred is helpful. In *The Origin of Wealth: Evolution, Complexity and the Radical Remaking of Economics*, Eric Beinhocker²⁷ offers a survey and synthesis for the layperson of recent developments in economic theory that provides some explanation for this economic history.²⁸ He argues that:

[W]ealth creation is the product of a simple, but profoundly powerful, three-step formula—differentiate, select and amplify—the formula of evolution Evolution is an *algorithm*; it is an all-purpose formula for innovation, a formula that, through its special brand of trial and error, creates new designs and solves difficult problems.²⁹

The biological evolution described by Darwin—which involves differentiation by genetic mutation, natural selection, and amplification by genetic inheritance—is a type of evolution, but DNA is not the only arena in which evolution operates.³⁰ Biological and economic systems are subclasses of a more general and universal class of evolutionary systems, and researchers

27. Eric Beinhocker's bio reads as follows:

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MCKINSEY GLOBAL INST., <http://www.mckinsey.com/mgi/perspective/biography/eric.asp> (last visited Nov. 8, 2010).

28. BEINHOCKER, *supra* note 26.

29. *Id.* at 11–12. Others have argued that “unguided evolutionary process may, or may not, lead to economic efficiency. Unfortunately, natural selection does not necessarily choose the firms (or institutions) that are the best for the long run. One of the main criticisms of financial markets is that they have become *increasingly* shortsighted.” STIGLITZ, *supra* note 4, at 273. Beinhocker, however, does not advocate for an *unguided* evolutionary process. As noted below, Beinhocker believes that the government may play an important role in establishing the environment in which evolutionary processes operate—either by setting goals or by setting constraints.

30. See BEINHOCKER, *supra* note 26, at 192. Beinhocker describes an algorithm as “a recipe that takes some set of inputs (for example, flour, eggs, sugar, butter), mechanically works them through some process (for example, stir together well, bake at 350°F or 175°C for fifteen minutes), and, if the instructions are followed, reliably produces some set of outputs (for example, cookies).” Beinhocker defines substrates as “the material or information on which the algorithm acts,” and argues that “evolution is an algorithm that is substrate neutral. It takes information about the designs of things and mindlessly grinds that information through a process.” *Id.*

believe that there are general laws of evolutionary systems.³¹ Beinhocker notes Daniel Dennett's assertion that "evolution [is] a general-purpose algorithm for creating 'design without a designer.'"³²

Evolution creates or discovers designs through a process of trial and error—a variety of candidate designs are created and tried out in the environment; the successful designs are retained and replicated.³³ An evolutionary process results in the emergence of greater structure and complexity over time, as evolution builds on the successes of the past to create novel designs for the future.³⁴ As the world changes, so too do the designs change and adapt.³⁵

As Beinhocker explains, "[t]he notion that the economy is an evolutionary system is a radical idea, especially because it directly contradicts much of the standard theory in economics developed over the past one hundred years."³⁶ Since the late nineteenth century, the organizing paradigm of economics has been that the economy is an *equilibrium system*, essentially a system at rest.³⁷ That economic paradigm was borrowed from another field of science: Newtonian physics.³⁸ But while physics has moved far beyond the Newtonian universe, economics has not.³⁹ The new paradigm in physics—as well as other areas of science—is complex systems.⁴⁰ Those are systems of many dynamically interacting parts, in which the micro-level interactions of the parts or particles lead to the emergence of macro-level patterns of behavior or emergent characteristics not observed at the micro level.⁴¹ When the parts or particles of the system have the ability to process information and adapt to their environment—Beinhocker refers to such parts or particles as agents—the resulting system is known as a "complex adaptive system."⁴² Evolutionary

31. *Id.* at 12 (citing JOHN H. HOLLAND, ADAPTION IN NATURAL AND ARTIFICIAL SYSTEMS (1992); L.D. WHITLEY, FOUNDATIONS OF GENETIC ALGORITHMS (1993); MELANIE MITCHELL, AN INTRODUCTION TO GENETIC ALGORITHMS (1996); L.F. LANDWEBER & E. WINFREE, EVOLUTION AS COMPUTATION (2002); J.P. CRUTCHFIELD & P. SCHUSTER, EVOLUTIONARY DYNAMICS: EXPLORING THE INTERPLAY OF SELECTION, ACCIDENT, NEUTRALITY, AND FUNCTION (2003)).

32. *Id.* at 13 (citing DANIEL C. DENNETT, DARWIN'S DANGEROUS IDEA 28–34, 48–60 (1995); RICHARD DAWKINS, THE BLIND WATCHMAKER (1986)). Beinhocker's description of evolution borrows heavily from the work of Daniel Dennett, an evolutionary theorist and director of the Center for Cognitive Studies at Tufts University, and from Richard Dawkins, the Oxford evolutionary theorist.

33. *Id.* at 14.

34. *Id.*

35. *Id.*

36. *Id.* at 16. Beinhocker notes that viewing the economy as an evolutionary system is "radical" when compared to traditional economic theory, but it is not new. In fact, Darwin's concept of evolution was sparked by Robert Malthus's economic writings, and, during the late nineteenth and early twentieth centuries, economists Thorstein Veblen, Alfred Marshall, Joseph Schumpeter, and Friedrich Hayek examined the relationship between economics and evolutionary theory. *Id.* at 16–17.

37. *Id.* at 17.

38. *See id.*

39. *See id.* at 18.

40. *Id.*

41. *Id.*

42. *Id.*

systems are merely one type of complex adaptive system, and some social scientists have wondered whether economies might be another such system.⁴³ The study of economic systems as complex adaptive systems or evolutionary systems has created new schools of economic thought, known as “complexity economics” or “evolutionary economics.”⁴⁴

The economic evolution described by Beinhocker “is not a single process, but rather the result of three interlinked processes.”⁴⁵ The first of these linked processes is the evolution of physical technology, such as bronze-making techniques, steam engines, and microchips.⁴⁶ The second process is the evolution of social technologies, or “ways of organizing people to do things,” such as the rule of law, money, joint-stock companies, and venture capital.⁴⁷ The two are equally important, and “coevolve with each other.”⁴⁸ An example is that the invention of the spinning frame (physical) made it economical to organize cloth-making in large factories (social), which, in turn, promoted development of water power, steam, and electricity (physical).⁴⁹ Finally, before the innovations of physical technologies and social technologies have an impact on the world, businesses must be formed to provide the goods and services created by these technologies to a marketplace. “Businesses are themselves a form of design,” integrating “strategy, organizational structure, management processes, culture, and a host of other factors.”⁵⁰

These three evolutionary processes: physical technology, social technology, and business organization interact and coevolve. What emerges is a complex adaptive system that has three key characteristics: (1) many dynamically interacting parts, (2) the parts have the ability to adapt to changes around them, and (3) micro-level interactions of parts or particles lead to the emergence of macro-level patterns of behavior different from the micro patterns that underlie the system.⁵¹ Perhaps most significantly, this complex adaptive system is not a system designed from the “top-down,” but rather emerges from the “bottom-up.”⁵² The existing global economy is just such a complex adaptive system, “orders of magnitude more complex than any other physical or social structure ever built by humankind.”⁵³

43. *Id.* at 18–19.

44. *Id.* at 19. *See also* Ulrich Witt, *Evolutionary Economics*, in *THE NEW PALGRAVE DICTIONARY OF ECONOMICS* (Steven N. Durlauf & Lawrence E. Blume eds., 2008).

45. BEINHOCKER, *supra* note 26, at 15.

46. *Id.*

47. *Id.*

48. *Id.* at 15–16. Beinhocker borrows these concepts from the evolutionary economist Richard Nelson of Columbia University. *See* RICHARD R. NELSON & SIDNEY G. WINTER, *AN EVOLUTIONARY THEORY OF ECONOMIC CHANGE* (1982); RICHARD R. NELSON, *THE SOURCES OF ECONOMIC GROWTH* (1996).

49. BEINHOCKER, *supra* note 26, at 16.

50. *Id.*

51. *Id.* at 18.

52. *Id.* at 18–19.

53. *Id.* at 6.

But lest this all sound entirely too mechanistic, there is another aspect of the process, and it involves that greatest of mysteries—human nature. Human nature is an inevitable ingredient in the evolution of these designs; it is a critical factor in their success or failure.⁵⁴ These evolutionary processes are all driven—at least in part—by human efforts to seek new and better ways of meeting our needs or desires. Beinhocker asks what spurs these efforts, and here is his answer:

The answer lies in the magic of non-zero-sum games [In] zero-sum games . . . one person's gain is another person's loss [In] non-zero-sum games . . . both people can be made better off by cooperating. Cooperation in non-zero-sum games has a 1+1=3 logic, whereby if you scratch my back, I'll scratch yours, and together we can do something neither can do as well on our own and we both benefit. Non-zero-sum cooperation is one of those Good Tricks of survival that has been widely employed by biological evolution. Dogs hunt in packs, termites collectively build mounds, fish swim in schools, and, like most primates, members of *Homo sapiens* live in groups.⁵⁵

The search for better ways of organizing ourselves—better social technologies—is the search for forms of organization “that enable people to play and capture the benefits of non-zero-sum games.”⁵⁶ The success of social organizations in accomplishing this result turns on three critical factors. First, the organization must provide the potential for non-zero-sum payoffs or gains.⁵⁷ These gains can be produced by a plethora of means including technological improvements, division of labor, exchanging different contributions (labor from some, capital from others), increasing returns to scale, and risk-sharing.⁵⁸

Second, people must share the benefits to be gained from the organization.⁵⁹ For people to have an incentive to cooperate, they must receive some share of the spoils, otherwise, cooperation collapses and the non-zero-sum gains evaporate.⁶⁰ It is here that the tension between selfish interest and collective interest is most intense, and this is the sphere in which gains that physical

54. Subsequent to the financial crisis that began in 2007, classical economic theory and “free-market” theories have come under substantial attack. One of the criticisms is that classical economic theory is based upon unrealistic assumptions about human behavior. In particular, classical economics assumes human agents that use complex deductive calculations to assess self-interest, make no cognitive errors and have no cognitive bias, have complete information, and have no need to learn or adapt. *See generally id.* at 115–19. *See also* STIGLITZ, *supra* note 4, at 249–53; POSNER, *supra* note 4, at 79–116.

55. BEINHOCKER, *supra* note 26, at 265–66. (citing SAMUEL BOWLES, MICROECONOMICS: BEHAVIOR, INSTITUTIONS AND EVOLUTION (2004); HERBERT GINTIS, GAME THEORY EVOLVING: A PROBLEM-CENTERED INTRODUCTION TO MODELING STRATEGIC INTERACTION (2000); H. PEYTON YOUNG, INDIVIDUAL STRATEGY AND SOCIAL STRUCTURE: THE EVOLUTIONARY THEORY OF INSTITUTIONS (1998); ROBERT ALEXROD, THE COMPLEXITY OF COOPERATION (1997); BRIAN SKYRMS, EVOLUTION OF THE SOCIAL CONTRACT (1996); ROBERT AXELROD, THE EVOLUTION OF COOPERATION (1984) for the centrality of “game theory” to an understanding of the evolution of social norms and institutions). *See also* R. WRIGHT, NON-ZERO: THE LOGIC OF HUMAN DESTINY (2000).

56. BEINHOCKER, *supra* note 26, at 266.

57. *Id.*

58. *Id.* at 266–67.

59. *Id.* at 267.

60. *Id.*

technologies make possible might be lost. There are two characteristics that promote a sharing of gains in a manner that promotes continuing cooperation: trust and communication.⁶¹ Both are critical because the sharing of gains requires trust in the reciprocal nature of the cooperation and communication about how the gains can be maximized and shared.⁶² Trust, especially among strangers, is facilitated by the rule of law. But law cannot replace a lack of trust.⁶³

Third, the social organization must have a means of dealing with those who “cheat” by seeking to capture the benefits of cooperation without contributing themselves (the “free rider”) or by seeking to capture the benefits without sharing those benefits with others who have contributed.⁶⁴ Beinhocker notes that “[t]he incentive to cheat means that cooperation is inherently difficult to achieve and potentially unstable even once attained.”⁶⁵ Psychological research demonstrates that

the consistent and deep-rooted nature of human cooperative-reciprocity behavior. Evolution has steered us in a direction whereby we are naturally inclined to be cooperative to capture the riches of non-zero-sum games. Nevertheless, it has also equipped us with a sensitivity to cheating, expectations of fairness, and a willingness to mete out punishment to those we believe have crossed the line.⁶⁶

Human history has evidenced the evolution of increasingly complex and sophisticated social structures for addressing these three prerequisites of non-zero-sum interaction.⁶⁷ From the family, to tribes, to agricultural settlements, and to nation-states and modern corporations, the trend has been to ever-larger organizations for cooperative activity encompassing greater numbers and wider geography.⁶⁸ Prevailing social technology can be decisive of whether a social organization can realize and perpetuate non-zero-sum gains.⁶⁹ One study has demonstrated that the most significant factors in the creation of wealth are *not* natural resources, sophisticated physical technology, or competent government.⁷⁰ The most important factors are the rule of law, the existence of property rights, a well-organized banking system, economic transparency, a lack of corruption, and other social factors that promote non-zero-sum gains.⁷¹

The modern corporation is the largest and most complex non-state institution in the world. It was made possible by technologies that allow for communication across vast space and the ability to process substantial amounts

61. *Id.* at 274.

62. *See id.* at 267–68.

63. *Id.* at 274.

64. *Id.* at 268–70.

65. *Id.* at 268.

66. *Id.* at 269.

67. *See id.* at 270–75.

68. *Id.*

69. *Id.* at 261.

70. *Id.*

71. *Id.*

of information. It integrates a host of social technologies including money, accounting, and limited liability. Some cognitive scientists even believe that such organizations are capable of having emergent, cognitive capabilities that no individual in the organization has and that are greater than the sum of all the people within the organization.⁷² Ironically, Beinhocker states that

[British Petroleum (BP)], with its 103,000 employees in over a hundred countries around the world, is a marvel of human cooperation. The vast majority of its people have never met and never will meet, but are bound together in a web of social structures, norms, protocols, legal structures, and incentives that enable them to work together for a common purpose. If one extends that web of cooperation beyond BP's immediate employees to include its 1.3 million shareholders and thousands of supplier and other partner companies, then the scale of a social structure such as BP becomes even more remarkable.⁷³

Yet, BP's oil spill in the Gulf of Mexico during the Spring and Summer of 2010 evidences the ability of such organizations to create massive harm as well as good.

The foregoing analysis is, of necessity, very generalized and surveys developing areas of study and analysis. Nonetheless, this focus upon evolutionary or complexity economic analysis and upon game theory may contribute to a better understanding of the attributes of corporate and entity law that will facilitate reaching societal or collective goals.

IV

THE IMPLICATIONS FOR CORPORATE LAW

There are three main conclusions from Beinhocker's survey that may have potential implications for corporate and entity law:

1. The creation of wealth—and the accomplishment of any human goals—are a function of evolutionary processes that create differing designs or structures, select for the design that is most fit for the environment in which it operates, and allow for the amplification or replication of that design. Organizational structures are one such design.
2. Economic systems are complex adaptive systems that were not and cannot be created from the top-down, but evolved from the bottom-up. The systems are far too complex to be managed by any singular source or authority because no one can know how all the parts work together. The parts of the system also are capable of evolving and adapting to meet its defined goals or humans needs.
3. Social organizations that evolve successfully will be those that promote the realization of non-zero-sum gains. This requires the

72. *Id.* at 275–76. (citing JOHN MICKLETHWAIT & ADRIAN WOOLDRIDGE, *THE COMPANY: A SHORT HISTORY OF A REVOLUTIONARY IDEA* (2003)).

73. BEINHOCKER, *supra* note 26, at 276.

intelligence and ingenuity to develop technologies and organizations that create such gains, it requires an allocation of gains in a manner satisfactory to promoting and preserving the cooperation of those needed to realize the gains, and it requires a system to reliably punish those who cheat.

Each of these observations has some significant, if not surprising, implications for the corporate law.

A. Allowing for Evolution

Legal structures that allow for evolutionary processes are important to the success and survival of any social structure. Freedom to experiment is important to fostering this process. The corporate law should allow the flexibility to develop new social technologies and adapt to change, so long as that flexibility does not sacrifice some equally important value. This characteristic has been part of the empowering philosophy of both the MBCA and the Delaware General Corporation Law.⁷⁴ With respect to many of the ongoing debates about what form of corporate governance is most advantageous, evolutionary theory suggests that the participants in corporate organizations ought to have the flexibility to experiment with different structures and resolve those issues for themselves. While the general corporation law contains default structures that operate in the absence of a conscious decision to vary them, the ability to vary those provisions is valuable.⁷⁵

For example, stockholders ought to have the ability to experiment with structures that enhance their ability to exercise some control over the organization. The board-centered structure that is part of both the MBCA and the Delaware General Corporate Law ought to be subject to change and experimentation.⁷⁶ The empowering philosophy of these statutes ought to not be

74. Various theorists have argued that free contracting in a competitive system will promote the general welfare. *See generally* FRANK EASTERBROOK & DANIEL FISCHEL, *THE ECONOMIC STRUCTURE OF CORPORATE LAW* (1991). This proposition has been applied to competition among states for incorporations. *See generally* ROBERT ROMANO, *THE GENIUS OF AMERICAN CORPORATE LAW* (1993). *But see* Lucian Bebchuk, Alma Cohen & Allen Ferrell, *Does the Evidence Favor State Competition in Corporate Law?*, 90 CAL. L. REV. 1775, 1778–81 (2002). The financial crisis of the past three years has generated substantial criticism of “efficient market” theory as the method for achieving or measuring the common good. Evolutionary or complexity economics may lead to certain conclusions also supported by efficient market theory, but based upon a different economic analysis. Beinhocker questions efficient market theories based upon traditional economic analysis. BEINHOCKER, *supra* note 26, at 21–75. *See also* STIGLITZ, *supra* note 4, at 239–48, 265–71.

75. For example, there are different models for the structure of corporate boards. The same model may not be the best model at all times for all corporations. Easterbrook, *supra* note 4, at 694–95. The point of evolutionary theory is that no one can determine a priori what is the best model, even for most firms, most of the time. Rather, boards operate as part of a complex adaptive system in which the fitness of the model will be determined by an evolutionary process operating from the ground up.

76. There is a considerable debate over the roles of stockholders and directors. For example, there is a plethora of criticism of stockholder activism, contending that stockholders are conflicted in their goals, short-term oriented, and uninformed. *See, e.g.*, Stephen M. Bainbridge, *The Case for Limited Shareholder Voting Rights*, 53 UCLA L. REV. 601 (2006); Lynn A. Stout, *The Mythical Benefits of*

limited to empowering boards of directors. It also ought to extend to empowering stockholders, so long as other important values are not sacrificed. Similarly, in the longstanding debate between *stockholder* interest and *stakeholder* interest, the corporate law should be flexible enough to allow for experimentation, allowing other interests to be considered, if desired by the participants. In addition, the law ought to allow flexibility when selecting the purposes for which the corporation is created, recognizing that for-profit activities are not the only ends to be served by the corporate form of organization.⁷⁷ In essence, evolution will test the fitness of the various and competing theories advanced with respect to corporate governance.

There are limitations on the principle of flexibility and two are worth noting here. As explained below, the fiduciary duty of loyalty applicable to those who manage the assets and property of others is important to maintaining the type of organization that can create non-zero-sum gains. Experimentation that would jeopardize the existence and enforcement of those duties should be carefully examined. If game theory is correct, forms of social organizations that undermine trust are inherently dysfunctional in the long run. In addition, forms of organization that limit communication between corporate constituencies—especially between stockholders, managers, and directors—operate to hinder the realization of non-zero-sum gains. Experimentation that would jeopardize the ability of stockholders and directors to obtain information about the

Shareholder Control, 93 VA. L. REV. 789 (2007); Iman Anabtawi, *Some Skepticism About Increasing Shareholder Power*, 53 UCLA L. REV. 561 (2006); Jill E. Fisch, *Measuring Efficiency in Corporate Law: The Role of Shareholder Primacy*, 31 J. CORP. L. 637 (2006). Others argue that stockholder activism is associated with better long-term performance of the corporation. See, e.g., George W. Dent, Jr., *The Essential Unity of Shareholders and the Myth of Investor Short-Termism*, 35 DEL. J. CORP. L. 97 (2010) (exhaustively reviewing the literature critical of stockholder activism and the literature demonstrating the benefits of stockholder activism); Easterbrook, *supra* note 4, at 695 (citing Harold Demsetz & Kenneth Lehm, *The Structure of Corporate Ownership: Causes and Consequences*, 93 J. POL. ECON. 1155, 1161 (1985) (arguing that corporations in which individual investors or small groups of investors own large blocks of stock perform better because the owners are good monitors)).

77. The financial crisis of the past three years—and especially the government assistance provided to publicly-held corporations—has posed a fundamental challenge to the prevailing theories of corporate structure and purpose. Those events have challenged the assumption that the costs of the failure of corporate governance are only borne by the participants in creating, managing, and owning those entities. If corporate governance was a causative factor in the financial crisis—a point that is hotly debated—then that failure imposed tremendous “external costs” on persons other than directors, managers, and stockholders. STIGLITZ, *supra* note 4, at 15–19; POSNER, *supra* note 4, at 106–08, 114–15. In light of those costs and the resulting rescue efforts, it is not surprising that profound questions are being raised about the ultimate purposes to be served by the creation and operation of business entities. Of the six dominant theories of corporate governance, four are premised on long-term profit maximization for stockholders as the primary, if not exclusive, objective of the corporate enterprise, while two of the theories allow for the consideration of the interest of other constituencies or broader societal interests. J.W. Verret, *Treasury Inc.: How the Bailout Reshapes Corporate Theory and Practice*, 27 YALE J. ON REG. 283, 315–26 (2010). One commentator has proposed that “shareholder primacy”—profit maximization for the enterprise and stockholders—be a default setting that would give way in the case of an emergency, such as the financial crisis of 2008. See generally Robert J. Rhee, *Fiduciary Exemption for Public Necessity: Shareholder Profit, Public Good, and the Hobson’s Choice During a National Crisis*, 17 GEO. MASON L. REV. 661 (2010).

corporation—subject to important confidentiality and trade-secret concerns—should be carefully examined.

Another important caveat about flexibility relates to the phenomenon of “too big to fail.” Evolutionary processes necessarily involve change that is adaptive and change that is dysfunctional. The theory is that the process will “select” the successes from the failures. But what if the universe of organizations is so limited that the failure of one organization will result in the failure of that entire segment of the economy—or even of the entire economy? Biological evolution produces species that become extinct as well as those that proliferate. The answer to this paradox is not simple, and this issue poses a significant challenge to the utility of evolutionary economics, which presupposes a diversity of business forms on which selection for fitness operates. Nonetheless, freezing innovation and change by selecting a single form of organization deemed to be the “best” seems both hopeless and ill-advised. Changes in the environment in which corporations operate, including the demands and needs they are attempting to meet to be successful, will never end. Corporations must be able to adapt to those changes, and that adaption will involve experimentation. Nonetheless, experimentation that would produce catastrophic failure is not a prescription for accomplishing any societal goals. The options would seem to be limited to: (1) minimize the size of the institutions so that failure would not be systemic, (2) manage the failure so that the resources of the corporation are re-deployed in new organizations without too great a systemic cost to the economy and without engendering “moral hazard,” or (3) allow failure with whatever consequences result. As of yet, it does not appear any satisfactory solution has been found.⁷⁸ But a respect for innovation and experimentation cannot ignore the size and concentration of economic—as well as governmental—power and resources. That very concentration may stifle the evolutionary process.

B. The Illusion of Managing a Complex Adaptive System

The global economy undoubtedly is a complex adaptive system. The ability of any lawmakers to control or manage that system is not simply limited by the confines of territorial jurisdiction; it also is limited by the ability to understand the interactions of the multitude of factors affecting its operation. Nonetheless, this conclusion does not mean the system ought to be left to operate in whatever fashion it does. Beinhocker suggests a distinction that may be helpful in this regard:

Policies that get the government involved in differentiating, selecting, and amplifying [physical or social technologies and business organizations] would be seen as

78. Title II of the Dodd-Frank Act creates a new insolvency process for large, interconnected companies whose failure creates a significant risk to the financial stability of the United States. However, there is serious question whether the process created by Title II is sufficient to avoid the adverse and systemic damage that supposedly was prevented by the Troubled Asset Relief Program (TARP).

interfering in economic evolution and have all the problems discussed in the critique of socialist economies In contrast, policies that *shape the fitness environment*, while leaving . . . selection and amplification [of technologies and business organizations] to market mechanisms, are a different matter.⁷⁹

This prescription would leave the structure and form of business organizations to the evolutionary processes allowed by flexible business organization laws, while allowing government regulation to set the parameters within which such evolutionary and market processes would operate. Any evolutionary process operates within an environment that sets the parameters by which fitness is tested. Cold environments produce certain physical traits that promote survival, and hot environments produce other physical traits that will promote survival. What will succeed depends upon the external environment in which the evolutionary process operates and to which that process must adapt. The law may establish the “environment” in which social organizations, including corporations, operate by defining the outcomes being sought and the constraints in which the evolutionary process will operate. Setting such parameters does not necessarily result in losing the benefits of an evolutionary process. The law may define some of the ends, and the means to reach those ends will be created by an evolutionary process. This paradigm also may reconcile the competing, and sometimes conflicting, roles of federal law (or multinational law) and state entity law. The state law allows for the evolutionary process of design creation and selection; federal or multinational law sets the environment in which that process operates, thereby setting the parameters by which “fitness” will be measured.

C. Non-zero-sum Games and Fiduciary Duties

Game theory postulates that social organizations that promote trust and communication between cooperating individuals will better realize the gains possible from non-zero-sum interactions and better sustain such interactions. There are a number of differing groups that must cooperate to produce an effective corporation, but the relationships of most concern to the corporate law are those between (1) officers and directors, (2) stockholders and officers and directors, and (3) among stockholders. A lack of trust and communication between these groups will presumably undermine the ability of the corporation to produce gain.

Game theory also postulates that social organizations must have the ability to identify and discipline cheaters—those who do not reciprocate in sharing benefits or those who “free ride” on the work of others. The precise “bargain” that cooperating parties may strike—and consequently the definition of cheating—may vary from organization to organization. According to John Nash (profiled in the popular book and movie, *A Beautiful Mind*), the bargain struck for dividing the gains from non-zero-sum interactions depends upon how much each of the parties values the benefits of the deal, and what alternatives are

79. BEINHOCKER, *supra* note 26, at 426 (emphasis in original).

available to each of the parties.⁸⁰ The trade is made “at the point at which no one has any incentive to change position, given the actions of the other. This point became known as the Nash equilibrium.”⁸¹

The most critical component of the corporate law for establishing and enforcing trust between directors and officers, on the one hand, and stockholders, on the other, is the fiduciary duty of loyalty. The MBCA codifies that duty in sections 8.31 and 8.42—which obligate directors and officers, respectively, to act “in the manner the director reasonably believes to be in the best interests of the corporation”⁸²—and in subchapter F, which deals with directors’ conflict-of-interest transactions. The Delaware law imposes similar fiduciary duties on directors and officers, although those duties are developed in the case law and not by statutory codification. In both cases, the corporate law does not allow those fiduciary duties to be modified or eliminated, and in the case of the Delaware General Corporation Law, a director’s liability for money damages for breaches of such a duty may not be eliminated.⁸³ The MBCA is somewhat more permissive in allowing directors to be exculpated from monetary liability for breaches of the duty of loyalty.⁸⁴

Game theory suggests that laws that undermine the obligations of the duty of loyalty could undermine trust and, ultimately, the cooperation necessary to any successful social organization. To a certain extent, the parties may be able to contract as to their expectations of each other, thereby establishing trust through the mechanism of compliance with contractual undertakings.⁸⁵ However, such contractual arrangements are more effective if they are the result of real bargaining and are truly reciprocal. Contracts of adhesion that are so one-sided as to destroy any sense of reciprocity are more likely to undermine trust rather than promote it.⁸⁶

80. *Id.* at 267.

81. *Id.* at 267–68 (emphases omitted).

82. MODEL BUS. CORP. ACT §§ 8.31, 8.42 (2008).

83. DEL. CODE ANN. tit. 8, § 102(b)(7) (2001).

84. MODEL BUS. CORP. ACT § 2.02(b)(4) (2008).

85. See generally Myron T. Steele, *Freedom of Contract and Default Contractual Duties in Delaware Limited Partnerships and Limited Liability Companies*, 46 AM. BUS. L.J. 221 (2009).

86. The proposition that contractual agreements—either real or hypothetical—may be either the best utilitarian outcome or the fairest outcome is hotly debated. See, e.g., J. William Callison & Allan W. Vestal, *Contractarianism and Its Discontents: Reflections on Unincorporated Business Organization Law Reform*, 42 SUFFOLK U. L. REV. 493 (2009). In order to preserve the long-term cooperation essential to creating non-zero-sum gains, the contract should produce a division of gains deemed by the participants in the exchange as minimally fair. As one commentator has noted, “actual contracts carry moral weight insofar as they realize two ideals—autonomy and reciprocity.” MICHAEL J. SANDEL, *JUSTICE: WHAT’S THE RIGHT THING TO DO?* 144 (2009). The autonomy of the contracting parties may be undermined by their unequal bargaining positions, and the reciprocity of the contract may be undermined by a host of factors including the relative knowledge and judgment of the parties. See *id.* at 144–51. The long-term “fitness” of a purely contractual model for legal entities may depend upon how close or far the contract is from the ideals of autonomy and reciprocity. Two factors in evaluating such matters are the size of the enterprise and the role of the parties in setting the terms of the contract.

The need for trust also is critical in the relationship between officers and directors. Directors are largely dependent upon officers to provide the information necessary for decisions, to present the risks and benefits of various options in an even-handed and candid manner, and to alert the directors as to issues that need to be addressed. Officers determined to control the decisions made by the board can attempt to do so by limiting information, biasing the analysis of options, or failing to alert the board to relevant issues. In such an environment, it is difficult for the board process to be meaningful, and, if the board perceives it is operating in such an environment, the board's relationship either with the officers or the stockholders will be undermined. The relationship with officers will be undermined because the board will no longer trust the information or analysis being provided. The relationship with the stockholders will be undermined because the stockholders may perceive the board as not protecting their interest, but merely "rubber-stamping" the proposals made by management.

Finally, the need for trust among stockholders is an increasing issue. The default—and largely mandated—structure of the corporation is built upon the model of stockholder democracy. Each stockholder largely is dependent upon the judgment of a majority of stockholders as to who should be the directors of the corporation, what fundamental transactions (such as a merger) should be undertaken, and what contractual terms should be specified among interested parties with respect to the corporate arrangement (such as what provisions should be in the certificate of incorporation or the bylaws). This model is premised on the idea that all stockholders—either in the long or short run—seek to maximize the value of the corporation. The use of classes of stock with differing terms and powers can create conflicts among stockholders and render stockholders distrustful of each other and corporate governance. Institutional stockholders may have financial interests that may conflict with the interest of others in maximizing the value of the corporation (such as relationships with the corporation in addition to being a mere stockholder, or competing investments). Finally, new derivative instruments may provide opportunities for stockholders to benefit from the failure or lack of success of the corporation, and those interests may be larger and more significant than the stockholders' interest in the stock.

Game theory also postulates that communication is critical to the ability of a social organization to realize the gains of non-zero-sum interactions. The corporate laws and the federal securities law operate to promote communications in certain respects. The corporate law allows stockholders to obtain corporate books and records for certain purposes relevant to their investment, and the securities laws mandate certain disclosures. Laws that restrict a stockholders' ability to obtain information may undermine communication and, in turn, undermine the effectiveness of corporations. On the other hand, more information is not necessarily better information. The volume of information may be so burdensome that it becomes useless. In the final analysis, the information that officers provide to boards and that boards

provide to stockholders may be more effective by focusing boards and stockholders, respectively, on the important issues and decisions, the salient pros and cons, and the value judgments made in collecting and presenting the information. In addition, volumes of information may render the situation more opaque, not more transparent. Once the information is not trusted, the relationship between the parties may become dysfunctional.

V

CONCLUSION

The corporate form was created and succeeded in a much simpler world than the world of today. The increasing size and complexity of corporations and the financial markets has created an increasing number of problems with respect to the most efficient and fair form of organization, maintaining the trust necessary for successfully functioning social organizations and markets, and facilitating the flow of information and communication between interested parties. These challenges may require experimentation with new forms of organization to ascertain by trial and error what forms may best address these issues. If evolutionary economics and game theory are correct, those new forms that best address these issues ought to succeed in the long run. In addition, if evolutionary economics is correct, the law would operate best by allowing experimentation with respect to means, even if the law sets the ends desired and imposes certain constraints. But the law also requires a modesty to acknowledge its own limitations and a realization that the law is an imperfect expression that requires careful and constant reconsideration. The sixtieth anniversary of the MBCA is a perfect occasion for such reconsideration.